

**In the Claims:**

Claim 1 (currently amended): An apparatus, comprising:

a chamber adapted to receive a first precursor gas;

at least one surface interior to the ~~chamber;~~ and chamber;

a piezoelectric liner coupled to the at least one surface of the  
chamber; and

~~an acoustic wave driver coupled to the at least one surface and~~  
~~adapted to drive acoustic waves along the interior surface~~ is deployed on  
the piezoelectric liner.

Claim 2 (original):      The apparatus of claim 1, wherein the acoustic wave driver is adapted to drive the surface acoustic wave in a selected range of frequencies.

Claim 3 (original):      The apparatus of claim 2, wherein the range of frequencies is selected based upon the composition of the first precursor gas.

Claim 4 (original):      The apparatus of claim 3, wherein the range of frequencies is selected based upon a mass of the molecules in the first precursor gas.

Claim 5 (original): The apparatus of claim 4, wherein the range of frequencies has a midpoint frequency, and wherein the midpoint frequency is decreased when the mass of the molecules in the first precursor gas is increased.

Claim 6 (original): The apparatus of claim 4, wherein the range of frequencies has a midpoint frequency, and wherein the midpoint frequency is increased when the mass of the molecules in the first precursor gas is decreased.

Claim 7 (original): The apparatus of claim 2, wherein the selected range of frequencies is chosen from an overall range of about 100Hz to about 200 kHz.

Claim 8 (original): The apparatus of claim 1, wherein the acoustic wave driver comprises at least one pair of electrodes.

Claim 9 (original): The apparatus of claim 8, wherein the pair of electrodes is a pair of apodized electrodes.

Claim 10 (original): The apparatus of claim 1, wherein the acoustic wave driver comprises at least one transducer.

Claim 11(currently amended): The apparatus of claim 1, wherein the at least one surface comprises a surface of a piezoelectric liner deployed in the chamber is cylindrical.

Claim 12 (original): The apparatus of claim 11, wherein the piezoelectric liner is a quartz liner.

Claim 13 (original): The apparatus of claim 11, wherein the at least one surface comprises a plurality of piezoelectric liners.

Claim 14 (original): The apparatus of claim 1, wherein the at least one surface comprises an interior surface of the chamber.

Claim 15 (original): The apparatus of claim 1, further comprising a pump coupled to the chamber and operable to evacuate the first precursor gas from the chamber.

Claim 16 (original): The apparatus of claim 1, wherein the chamber is adapted to received a second precursor gas.

Claims 17-69 (canceled).